

What is claimed is:

1. A surveying instrument comprising:

a surveying instrument body rotatable about each of a vertical axis and a horizontal axis; and

5 a first collimator optical system and a second collimator optical system each of which is positioned in said surveying instrument body to collimate said surveying instrument relative to a survey point, a viewing angle of said second collimator optical system being smaller than a viewing angle of said first
10 collimator optical system,

wherein a first collimating operation is performed with said first collimator optical system after a second collimating operation is performed with said second
15 collimator optical system.

2. A surveying instrument comprising:

a surveying instrument body rotatable about each of a vertical axis and a horizontal axis; and

a collimator optical system which is positioned in
20 said surveying instrument body to collimate said surveying instrument relative to a survey point,

wherein said collimator optical system comprises a zoom mechanism for varying a focal length of said collimator optical system.

25 3. A surveying instrument comprising:

a surveying instrument body rotatable about each of a vertical axis and a horizontal axis;

a telescope optical system positioned in said surveying instrument body;

5 a collimator optical system positioned in said surveying instrument body, a viewing angle of said collimator optical system being greater than a viewing angle of said telescope optical system,

wherein said surveying instrument body is driven to
10 rotate about each of said vertical axis and said horizontal axis to position an image of a target at a survey point within a field-of-view of said telescope optical system in accordance with positional information on said survey point which is obtained through said
15 collimator optical system.

4. The surveying instrument according to claim 1, further comprising an image sensor,

wherein said second collimator optical system is capable of forming an image on said image sensor.

20 5. The surveying instrument according to claim 4, further comprising an auto-collimating system which drives said surveying instrument body to rotate about each of said vertical axis and said horizontal axis to position an image of a target at said survey point within
25 a field-of-view of said first collimator optical system.

6. The surveying instrument according to claim 5, wherein said first collimator optical system and said second collimator optical system share the use of said image sensor.

5 7. The surveying instrument according to claim 1, wherein said first collimator optical system comprises an all-directional mirror.

8. The surveying instrument according to claim 1, wherein each of said first collimator optical system and
10 said second collimator optical system comprises a light source for projecting light rays toward said survey point to collimate said surveying instrument relative to said survey point.

9. The surveying instrument according to claim 3,
15 further comprising:

an image sensor; and

an auto-collimating system which drives said surveying instrument body to position said image of said target at said survey point within a field-of-view of said telescope
20 optical system in accordance with positional information on said survey point which is obtained through said collimator optical system.

10. The surveying instrument according to claim 9, wherein said collimator optical system is positioned to be
25 capable of forming said image of said target on said image

sensor.